

Large Scale Cleaning Telescope Mirrors with Electron Beams

Completed Technology Project (2011 - 2013)



Project Introduction

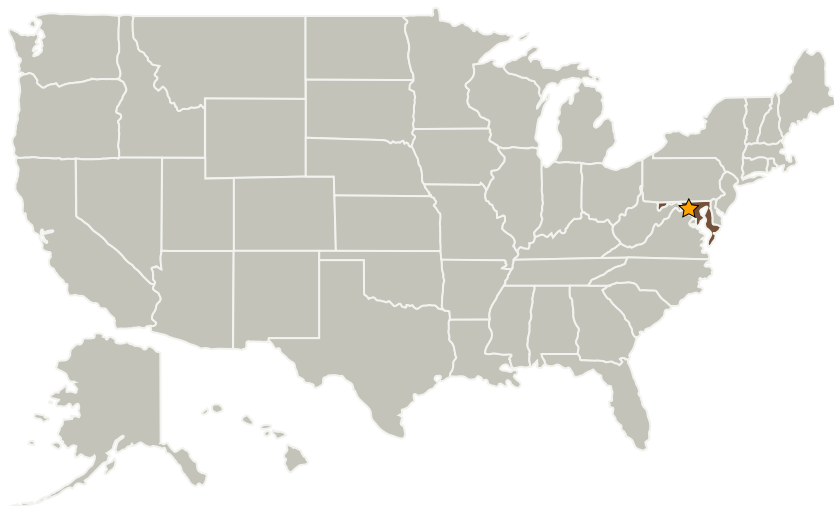
The Cleaning Lenses and Mirrored Surface with Electrons is a technology developed to provide access to large lenses and mirror structures and providing a low risk technique for cleaning their surfaces.

The Cleaning Lenses and Mirrored Surfaces with Electrons tasks include: Development of Fractal Wand Geometries; Vacuum Chamber testing fo Fractal Wand Prototypes; and selection of best prototype.

Anticipated Benefits

JWST, Micro Shutters, and MMS.

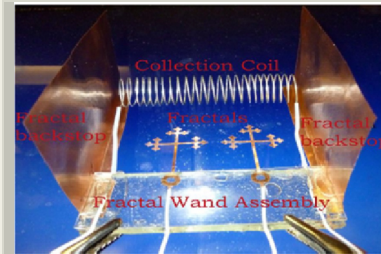
Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland

Primary U.S. Work Locations

Maryland



Project Image ROE FY11 CIF
141 CC Large Scale Cleaning
Telescope Mirrors with Electron
Beams

Table of Contents

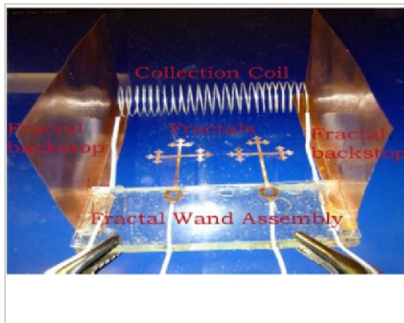
Project Introduction	1
Anticipated Benefits	1
Primary U.S. Work Locations and Key Partners	1
Images	2
Project Website:	2
Organizational Responsibility	2
Project Management	2
Technology Maturity (TRL)	3
Technology Areas	3

Large Scale Cleaning Telescope Mirrors with Electron Beams

Completed Technology Project (2011 - 2013)



Images



81.jpg

Project Image ROE FY11 CIF 141
CC Large Scale Cleaning Telescope
Mirrors with Electron Beams
(<https://techport.nasa.gov/image/1171>)

Project Website:

<http://aetd.gsfc.nasa.gov/>

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Center Innovation Fund: GSFC CIF

Project Management

Program Director:

Michael R Lapointe

Program Manager:

Peter M Hughes

Project Manager:

Michael A Johnson

Principal Investigator:

Fred A Minetto

Co-Investigators:

Sharon A Straka
John G Hagopian

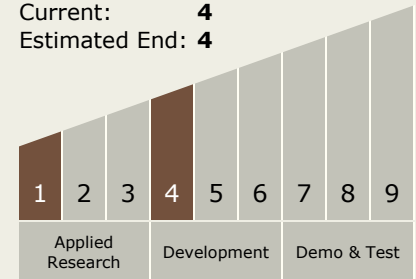
Large Scale Cleaning Telescope Mirrors with Electron Beams

Completed Technology Project (2011 - 2013)



Technology Maturity (TRL)

Start: **1**
Current: **4**
Estimated End: **4**



Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.2 Observatories
 - └ TX08.2.1 Mirror Systems